

MINUTES: Centerville Township Windmill Ordinance Committee, July 10, 2006

Present: Molly Hyde, Richard Light, Carolyn Weed, Travis Nelson, Richard Kobetz, David Wurm

Absent: Mark Zemanek, Joseph Czerniak, Gary Cook, Dale Pleva

The first order of business was to complete an itemized budget for planning. The following items add up to the \$1000.00 requested budget for the ordinance committee: Postage \$50, copies \$400, Travel \$200, consultants \$200, office supplies \$50, map, chart and aerial photo reproduction \$100.

The purpose of tonight's meeting was to discuss tower height, setbacks and density. Ms. Weed referred to Mr. Albert's statement in their conversation, that within two years there will be many more options in alternative energy technology. Already, vertical axis windmills are being produced. Anticipating changes in technology, this ordinance will apply to all wind technology.

There was discussion on whether we should define setbacks from buildings or from property lines. Since township zoning allows for parcels as small as 1½ acre, it was agreed the setbacks should be from a property line.

Mr. Light still believes discussion is necessary on the notion of industrial. Mr. Kobetz said industrial is generally when a company is engaged in manufacturing without a point of sale. Production of electricity would fall into that category since there is no direct sale to a customer.

Some of the ordinances reviewed have required all lines to be underground. As this would be more esthetically pleasing, it could also be uneconomical. It is thought that about 10 turbines at 1.6mw would be all our current infrastructure could support. More than that would be a matter of economics. How far to run power, bigger lines, substations, etc. are all part of the feasibility of a project.

The committee feels that a 150' total height (ground to top of blade) is consistent with the existing township zoning. Towers are limited to 150' as well as personal windmills. It is important to maintain the "rural character" of the township as referred to in the master plan. The allowance of towers higher than 150' would affect setbacks, property values, ice throw, etc. Proper setbacks would help to limit possible problems with neighbors. A 30' height limit was recently upheld in court in Bay Twp.

The setback needs to be adequate so that from the property line the angle of vision is no higher than 8 degrees. There should be an absolute height regardless of the type of structure. Should setbacks be determined by a formula in relation to the height or by an absolute number of feet? Mr. Kobetz reported some setback/density recommendations in the "Wind Energy Handbook". Based on rotor diameter for three towers spaced 886' apart with a 1000' property line setback, the minimum site required would be 3771'x

3771'. The handbook actually recommends 3000' setbacks to avoid for shadow-flicker, noise and view domination problems.

The township zoning was revised 1½ years ago, allowing up to 150' for towers and personal windmills. 150' is quite liberal, yet it is in a range that does not require lighting by the FAA. Setbacks should be set to protect the neighbors. If setbacks are not adequate and an individual has problems with a nearby wind turbine, enforcement is necessary to shut down the wind turbine until the problem is corrected. Perhaps an applicant would need to fund a full-time employee for the township to monitor problems.

To most closely match the master plan, should wind turbines be grouped in one area or be spread out? To meet setbacks, adjacent property owners could have a legal agreement (multi-party easement). Mr. Nelson questioned whether a lien for removal could be held against all parties of a joint easement? Mr. Light stated there should be an account for removal set up at the time of application.

The committee completed a preliminary draft of heights and setback distances with documented sources. This list is attached to these minutes. Further research could modify the height and setbacks outlined as so many topics are interrelated.

Mr. Wurm suggested the committee discuss an attendance policy at our next meeting. Decisions need to be made. Realizing we are all busy and this is a large time commitment, but we knew that prior to becoming members of this committee.

Topics to be discussed at the next meeting: noise, property values, view shed, attendance. Next meeting, July 27, 7pm.

Respectfully submitted.  
Molly Hyde

## **HEIGHT & SETBACKS**

Height	Restricted to 150 feet Ground to tip of upright Rotor	Consistent with current zoning regulations and Township Master Plan for private wind turbines
Setback from Property Line*	1,000 feet	A common setback in several ordinances
Distance Between Wind turbines	2,500 feet	A common setback in several ordinances
Setback from Any residence	Ten times the rotor Diameter	This distance is stated in <u>Wind Energy Handbook</u> , Burton, Sharpe, Jenkins, Bossanyi, Wiley & Sons Ltd, New York, 2001 pg. 527;

		This is a pro-wind text. The setback minimizes shadow/flicker for Epilepsy sufferers, and is important for “noise constraints and to avoid visual domination.”
Total number of wind turbines permitted in Centerville Twp.	The number of wind turbines that will generate TWICE the kilowatt hours estimated to be used by residents of Centerville Twp.	This number will vary depending on the technology used and may change as the township population changes
Setback from Public roads	10 times the rotor diameter	This is a reasonable protection against ice throw, collapse, and other hazards to the general public
Setback from The National Park, and from environmentally sensitive areas	2,500 feet	This was the most-debated point at the meeting. Comparable ordinances vary greatly on this point. The height restriction of 150 feet seems consistent with this measure.
Setback from Airfields (Sugar Loaf And Miller-Herold)	1 mile, (or FAA regulations if greater)	The township can make a requirement which exceeds FAA, if it chooses. One mile seems reasonable for an unlighted turbine tower and small non-radio-guided planes. Approach patterns are generally one mile out from an airstrip.

\* A pooling of properties is permitted in which a common lease/easement is signed by adjacent property owners and is recorded as part of each of the deeds. In such case, the property line is the outside perimeter of the adjacent properties.